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Chapter 4   Seed Files

Seed files

Seed files form the base for most newly created MicroStation design files. Seed files act as a template for a new design file containing information such as, working units, global origin, coordinate readout, etc. Creating a new design file with the seed file and opening the new design file using with project configuration file(*.pcf) will give the user access to the CFL level library, outlined in the CFL levels and symbology chapter, as well as CFL text styles and dimension styles, outlined in the annotation chapter.

At CFLHD, there are currently 6 seed files in use, each with attributes pertaining to a different design case. These seed files should be used to create all new files for CFLHD work. See *Workflow 1* for help with creating a new MicroStation design file using these seed files.

Seed Files	
Name	**Description**
Sur_ft2D.dgn	US Customary 2D based on US Survey foot
Sur_ft3D.dgn	US Customary 3D based on US Survey foot
Int_ft2D.dgn	US Customary 2D based on International foot
Int_ft3D.dgn	US Customary 3D based on International foot
Metric_2D.dgn	Metric 2D seed file
Metric_3D.dgn	Metric 3D seed file

Table 4.1: Seed files for X30 Criteria

These seed files are located on the CFLHD network at:

N:\Standards\V8_Resource\X_30\Standards\Seed\English

N:\Standards\ V8_Resource\X_30\Standards\Seed\Metric

US survey foot seed files are widely used on CFL projects. International foot seed files *(Int_ft2D.dgn and Int_ft3D.dgn*) shall only be used on CFL projects that have state requirement for these working units. Consultants should contact your COTR if unsure of which seed files to use. Note: The above seed files have a resolution of 10.000.

Working units have changed significantly in MicroStation V8. No longer does changing the basic working units affect the size of elements contained in the **.dgn** file. A conversion is now done within the software to display the correct length of elements when the working units are changed from Metric to English, or from drawings with different master and sub units. The design plane has changed as well, to be virtually unlimited. As such, global origin is no longer a factor either.

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Workflow 1: Creating A New MicroStation Design File

1. *When starting MicroStation, the first dialog shown is the MicroStation Manager. From MicroStation Manager, select File>New.*
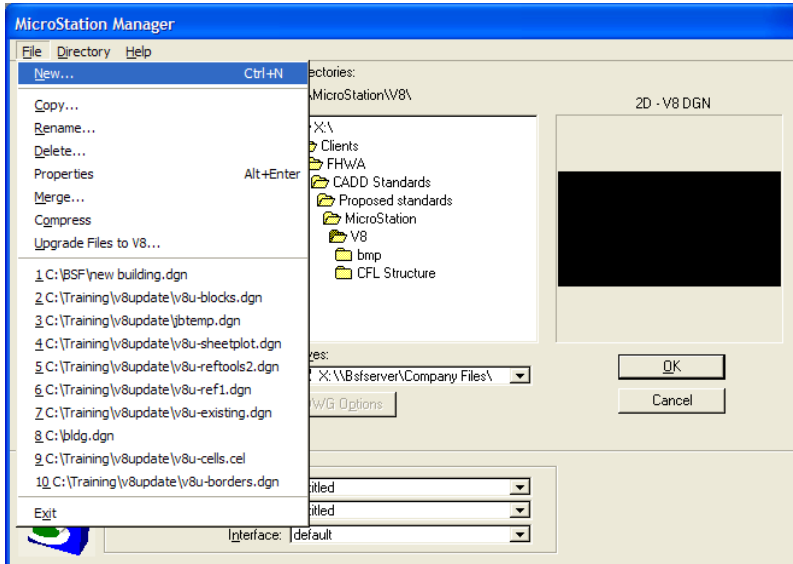

Figure 4-1: New file

2. *The Create New Design File dialog will activate. Under the Seed File heading a file is already selected. Click on the Select button to select the correct seed file. The Seed File dialog below shows the path to the CFLHD seed file.*
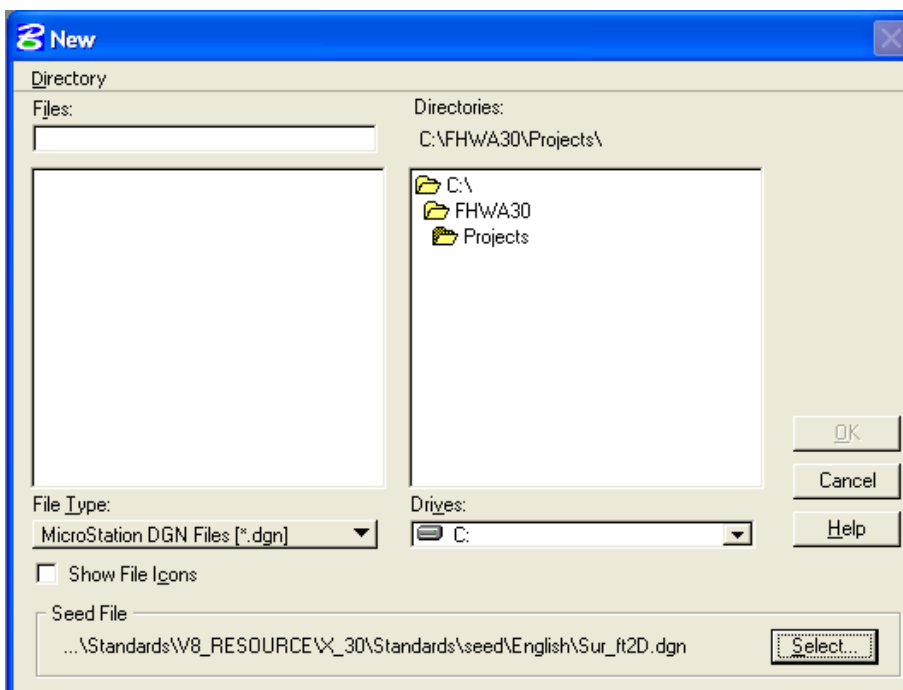

Figure 4-2: New File

From this dialog the user can give the file a new name, select the directory where the file will reside, and select the appropriate seed file to act as a base for the new design file.

3. *Once the user has reached the correct directory the available seed files will display in the files section of the dialog box. Select the correct seed file and click OK.*

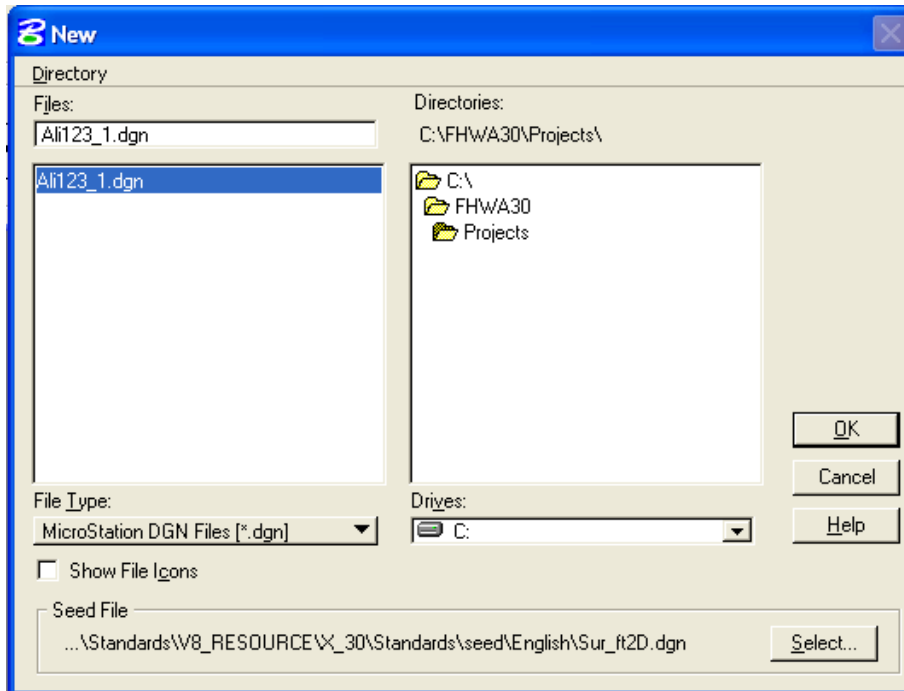4. *Give the new design file a name, make sure the path to where the file should be created is correct, then click OK.*

Figure 4-3: Create a new design file

5. *Under the seed file section, the correct CFLHD seed file is now displayed. In the directories box the example shows the path to where the user would like the file to be created, and in the files box, in the example above a new file a name has been typed in.*

6. *Prior to opening the new design file, select the project configuration file from the MicroStation Manager as shown below.*
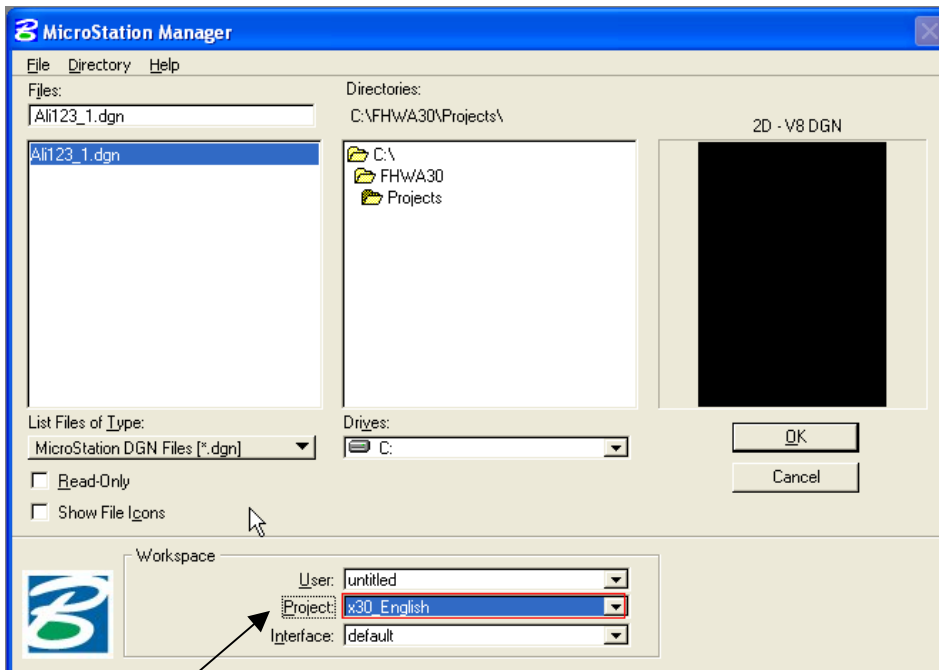
Figure 4-4: Project Configuration Setting

Project Configuration file (*.pcf)

Using the Project Configuration file will give the user access to the X30 Generation of Standard Files (Level library, line styles, cell library, color table, text styles, ddb files, etc.)

Coordinate Readout and Working Units

The MicroStation coordinate readout settings and working units settings control how measurements are displayed. However, the working units settings no longer control the precision of measurements and elements within the design file, as MicroStation V8 design files now have 64-bit floating-point accuracy. Care should still be taken when selecting the correct CFLHD seed file. If all new design files are created using the CFLHD seed files as outlined in Workflow 1, the coordinate readout and working units settings will always be correct, giving the user the correct output. This section shows how to check these settings.

The workflow below explains how to determine what the MicroStation working units settings are for the active design file. The dialog box that displays the working units settings also allows the user to change those settings. Changing these settings will no longer affect the size of elements within the design file. However, if the user selects the correct seed file, these settings should not need to be changed. This workflow also shows how to change the MicroStation coordinate readout for the active design file. Changing the coordinate readout settings will simply change the number of decimal points shown when measuring an element.

Workflow 2: Accessing the working units and Coordinate Readout dialog

1. *From MicroStation select Settings>Design File.*
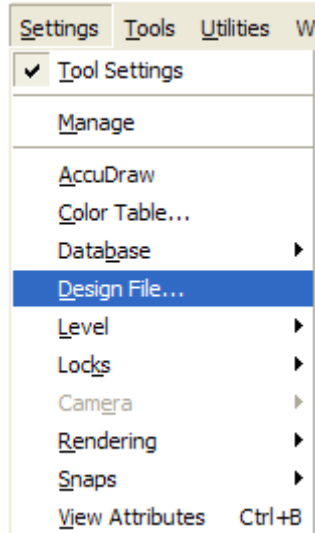
Figure 4-5: Design File Settings

2. *From the design file dialog box select Coordinate Readout or Working Units.*

Coordinate Readout

The coordinate readout section of the Design File Settings contains several settings including, format and accuracy for both coordinate readout and angles, and mode for coordinate readout. Format, for coordinates, lets the user select to display coordinate readout in terms of master units, sub units or working units. The generally accepted format, and the selection for FHWA are master units. For angles, format allows the user to display angles in decimal degrees or degrees-minutes-seconds. Accuracy, as used on the coordinate readout dialog, does not refer to the accuracy of the design file, but rather the number of decimal places to be displayed. The mode selection allows the user to select how angles are displayed: conventional, azimuth, or bearing.

The figures below show the different working units and coordinate readout settings contained within the CFLHD seed files. To access these dialog boxes use the preceding workflow.
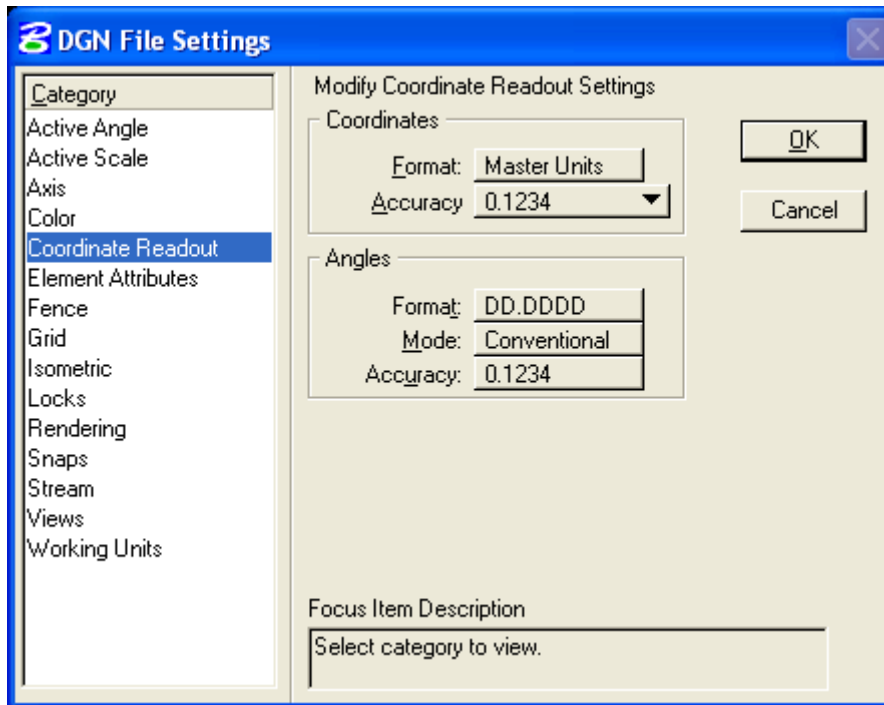
Figure 4-6: Coordinate Readout for English Roadway Seed Files
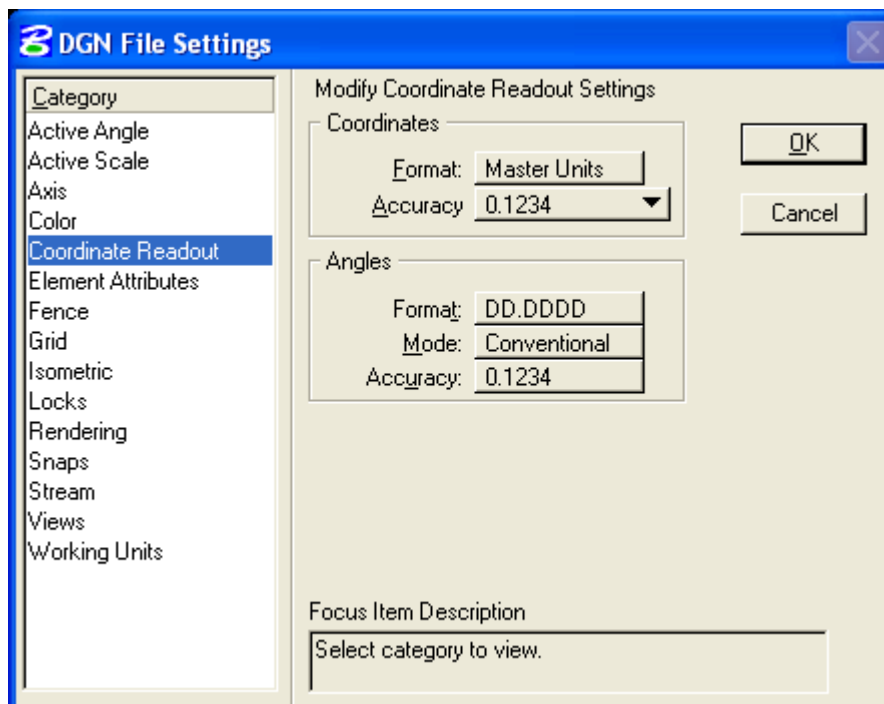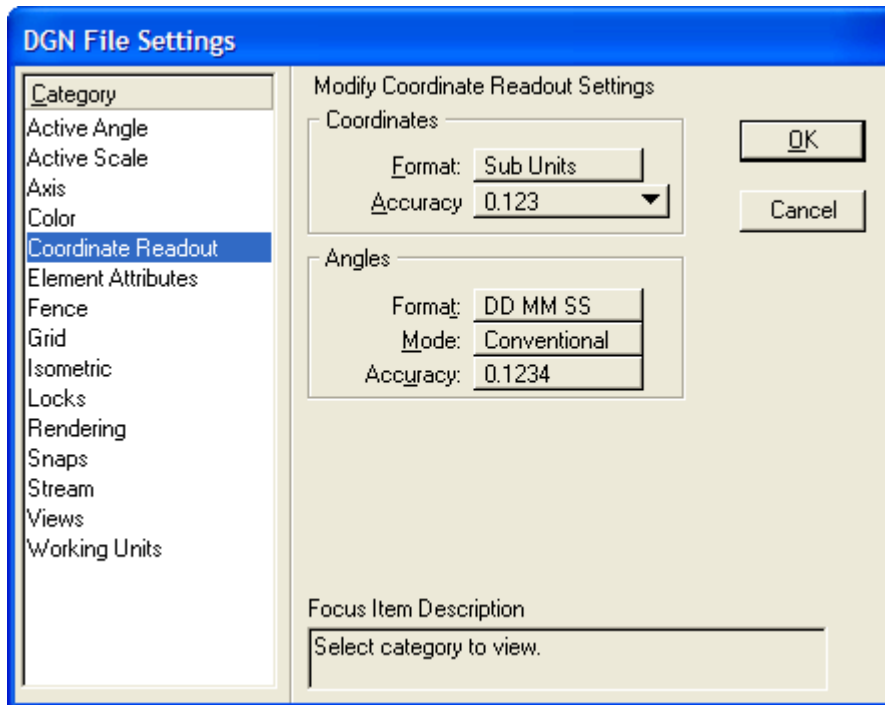
Figure 4-7: Coordinate Readout for Metric Roadway Seed Files
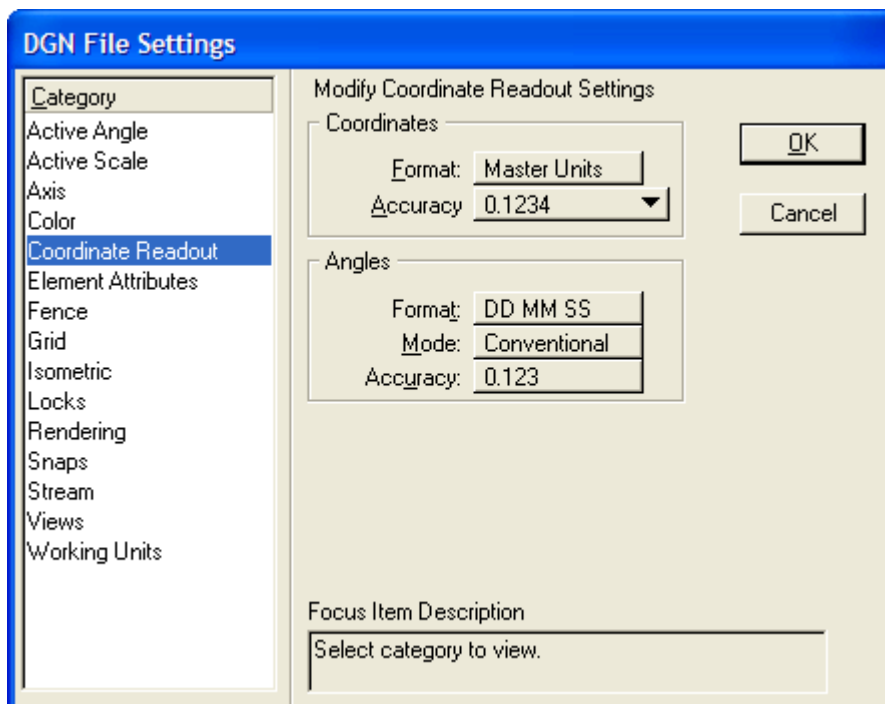
Figure 4-8: Coordinate Readout for English Bridge Seed Files

Figure 4-9: Coordinate readout for Metric Bridge Seed Files

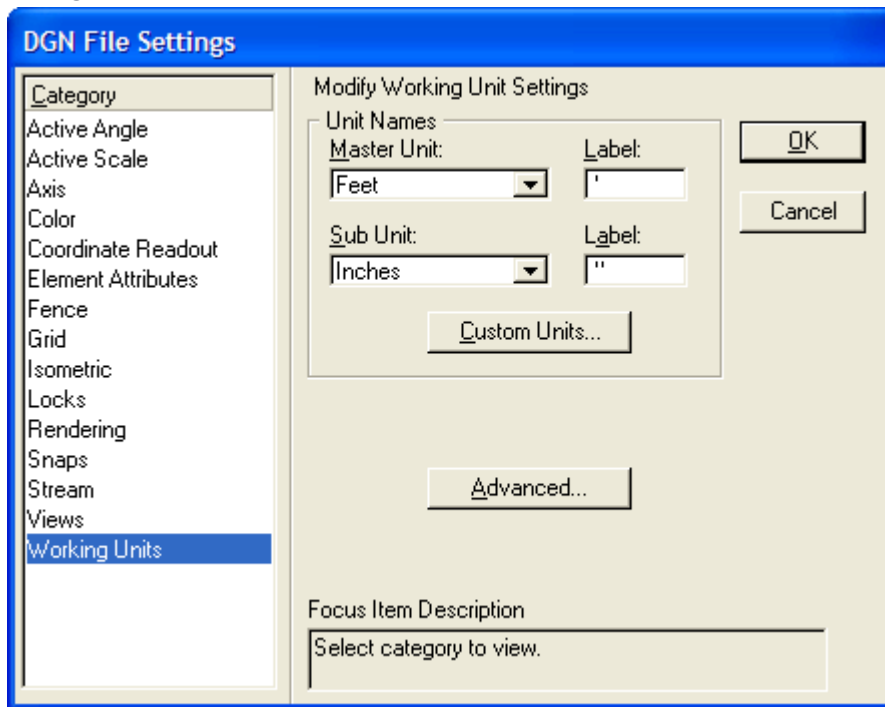**STANDARDS FOR USE WITH X30 CRITERIA**

Working Units

Figure 4-10: Working Units for English International Foot Roadway Seed File
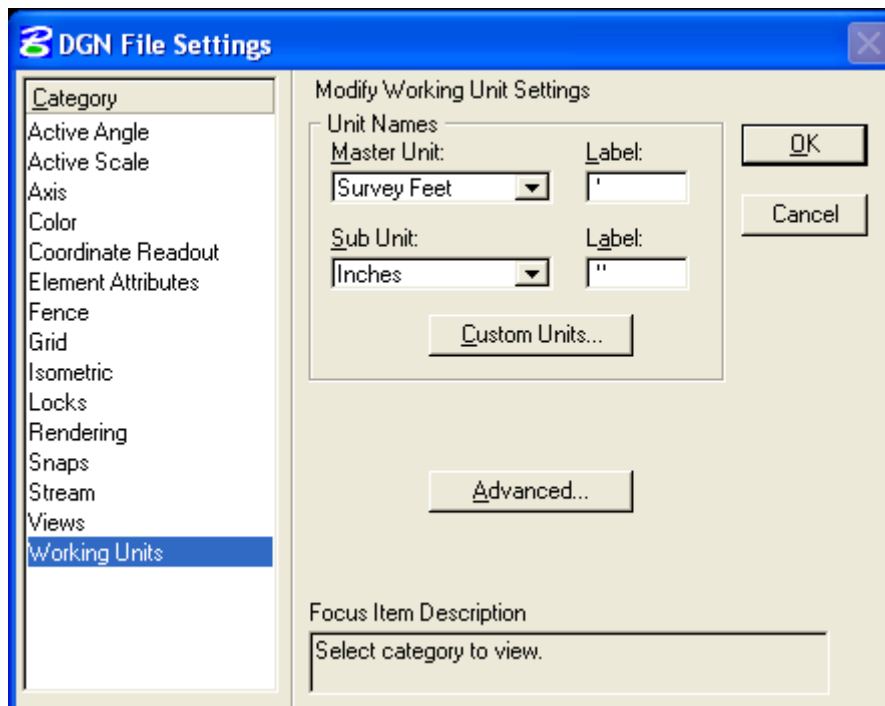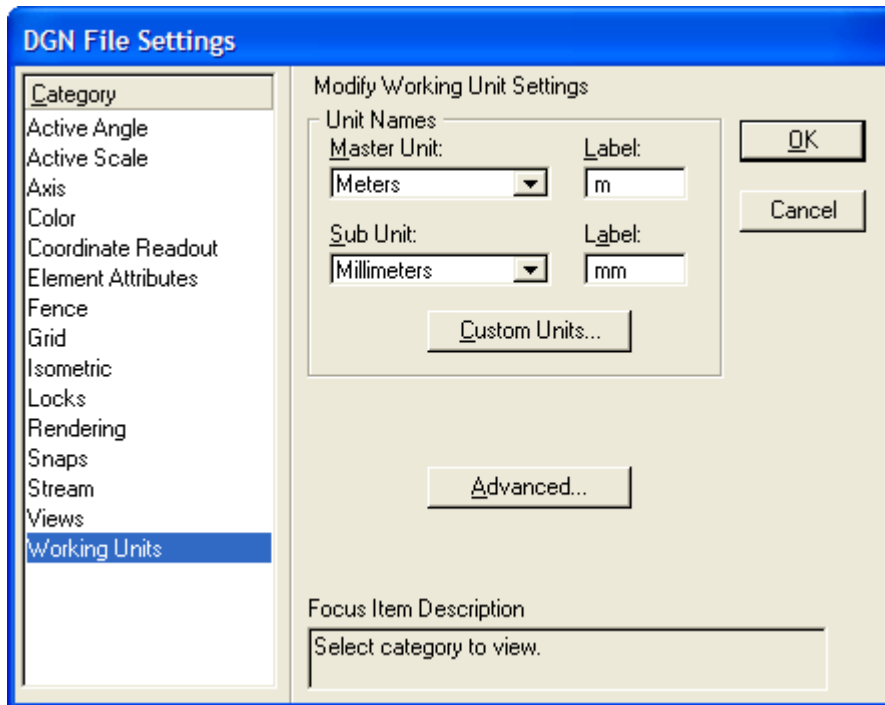
Figure 4-11: Working Units for English US Survey Foot Roadway Seed File

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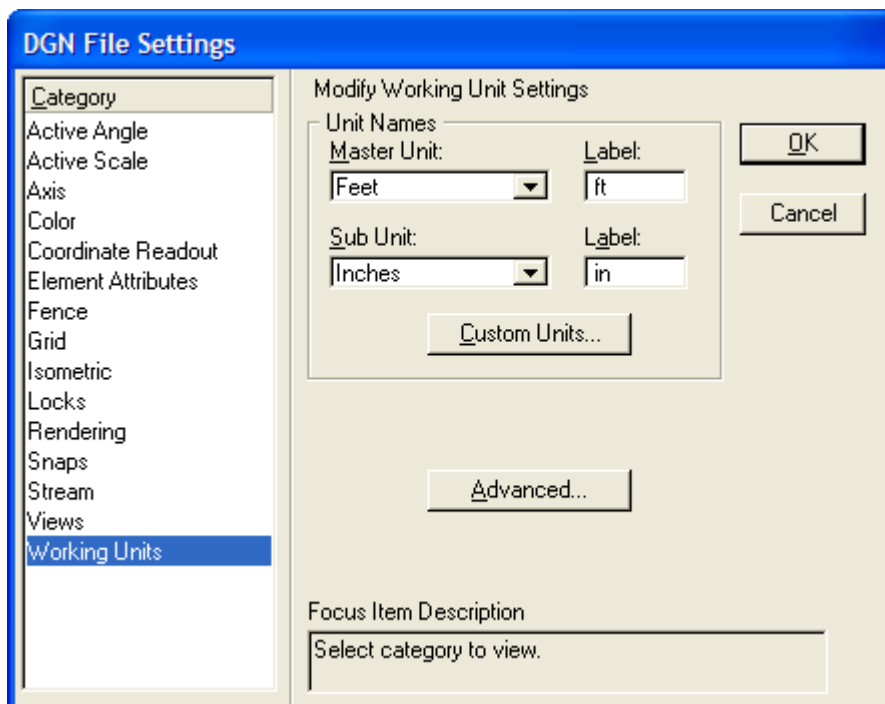
Figure 4-12: Working Units for Metric 2D seed file
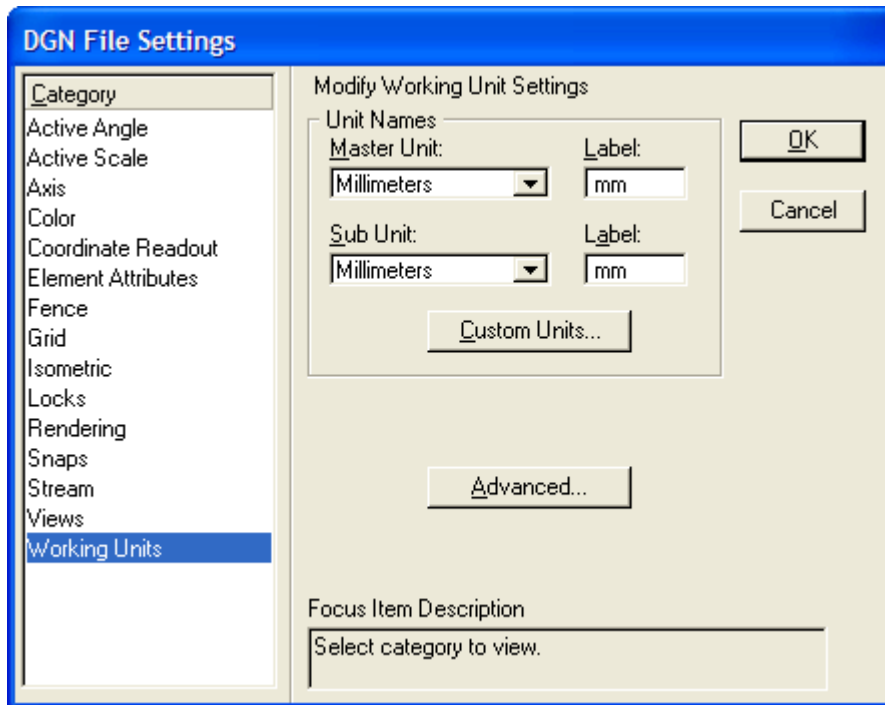

Figure 4-13: Coordinate readout for English bridge seed files

Figure 4-14: Coordinate readout for Metric bridge seed files